

Test Number: 185-14
Issue Date: 4/16/2014
6. Measurement Data (continued)
6.12. Public Exposure to Radio Frequency Energy Levels (1.1307 (b)(1))
RSS-GEN 5.5, RSS 102
6.12.1. MPE Power Density Table

Channel	MPE Distance (cm)	DUT Output Power (dBm)	DUT Antenna Gain (dBi)	Power Density		Limit (mW/cm2)	Result
				(mW/cm2)	(W/m2)		
ANT0	(1)	(2)	(3)	(4)		(5)	
TX4	20	19.07	2.93	0.032	0.315	1	Compliant
TX2	20	19.14	2.93	0.032	0.320	1	Compliant
TX0	20	19.19	2.93	0.032	0.324	1	Compliant
ANT1							
TX4	20	18.87	3.05	0.031	0.310	1	Compliant
TX2	20	18.86	3.05	0.031	0.309	1	Compliant
TX0	20	18.83	3.05	0.031	0.307	1	Compliant

$$PD = \frac{OP + AG}{(4 \times \pi \times d^2)}$$

PD = Power Density

OP = DUT Output Power (dBm)

AG = Antenna Gain (dBi)

D = MPE Distance

1. Reference CFR 2.1093(b): For purposes of this section, a portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user.
2. Section 6.3 of this test report.
3. Data supplied by the client.
4. Power density is calculated from conducted power output measurement and antenna gain.
5. Reference CFR 1.1310, Table 1: Limits for Maximum Permissible Exposure (MPE), Section (B): Limits for General Population/Uncontrolled Exposure.

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6. Measurement Data (continued)

6.12. Public Exposure to Radio Frequency Energy Levels (1.1307 (b)(1))

RSS-GEN 5.5, RSS 102 (cont.)

6.12.2. MPE Time Averaged Power Table

Channel	Frequency	DUT Output Power	DUT Antenna Gain	Calculated Output Power	Time Averaged Power	Limit	Result
		(MHz)	(dBm)	(dBi)	(mW)		
TX4	1921.536	19.07	2.93	158.49	6.11	100.00	Compliant
TX2	1924.992	19.14	2.93	161.06	6.21	100.00	Compliant
TX0	1928.448	19.19	2.93	162.93	6.28	100.00	Compliant

TX4	1921.536	18.87	3.05	155.60	6.00	100.00	Compliant
TX2	1924.992	18.86	3.05	155.24	5.98	100.00	Compliant
TX0	1928.448	18.83	3.05	154.17	5.94	100.00	Compliant

NOTE: Although the peak power is over the general exposure limit, the time averaged power is very small for DECT technology. In this case a nominal frame width of 385.5 μ s repeating every 10 mS, and therefore is compliant with the general exposure requirements defined in RSS-102 Section 2.5.1.

The reduction in power is calculated by $10 * \text{LOG} (0.3855 / 10)$ or -14.14 dB

RSS-102 Section 2.5, 2.5.1 & 2.5.2 Requirements:

2.5 - All transmitters are exempt from routine SAR and RF exposure evaluations provided that output power complies with the power levels of sections 2.5.1 or 2.5.2. If the equipment under test (EUT) meets the requirements of sections 2.5.1 or 2.5.2, applicants are only required to submit a properly signed declaration of compliance (see Annex C).

2.5.1 - SAR evaluation is required if the separation distance between the user and the radiating element of the device is less than or equal to 20 cm, except when the device operates as follows:

- above 1 GHz and up to 2.2 GHz inclusively, and with output power (i.e. the higher of the conducted or radiated (e.i.r.p.) source-based, time-averaged output power) that is less than or equal to 100 mW for general public use and 500 mW for controlled use

2.5.2 - RF exposure evaluation is required if the separation distance between the user and the device's radiating element is greater than 20 cm, except when the device operates as follows:

- at or above 1.5 GHz and the maximum e.i.r.p. of the device is equal to or less than 5 W.